



March 10, 2021

VIA ELECTRONIC FILING

The Honorable Jocelyn G. Boyd
Chief Clerk/Administrator
Public Service Commission of South Carolina
101 Executive Center Drive
Columbia, South Carolina 29210

RE: Dominion Energy South Carolina, Inc.
Request for "Like Facility" Determinations Pursuant to S.C. Code Ann. § 58-33-110(1) and Waiver of Certain Requirements of Commission Order No. 2007-626

(This filing does not involve any change to the retail electric or natural gas base rates of Dominion Energy South Carolina, Inc.)

Dear Ms. Boyd:

Dominion Energy South Carolina, Inc. ("DESC" or "Company") is planning to replace existing peaking generation at its Bushy Park, Parr, and Urquhart sites ("peaking generation replacement plan"). More specifically, the Company's peaking generation replacement plan calls for the replacement of 10 existing combustion turbines and one existing steam turbine-generator set with five modern aeroderivative-type turbines across the three sites. The peaking generation replacement plan will also allow the Company to retire three other existing combustion turbines at the Hardeeville and Coit sites.

Recent events in the State of Texas underscore the need for utilities such as DESC to hold reliable peaking capacity. The existing peaking generation at the Bushy Park, Parr, and Urquhart sites provides the capacity for the Company to continue to reliably meet critical system peaks and ensure that DESC continues to provide reliable electric service to the Southern, Northern, and Western Regions of its electric service territory in which the peaking generation is located. However, of the fourteen (14) units to be replaced or retired, thirteen (13) will be 50 years old or older at the time of replacement or retirement and nearing the end of their useful life. The peaking generation replacement plan, detailed below and discussed in the Short-Term Action Plan in the Company's Modified 2020 Integrated Resource Plan filed on February 19, 2021 ("Modified 2020 IRP"),¹ supports the continued reliability of DESC's system and the integration of intermittent, non-dispatchable renewable resources (e.g., solar), increases the fuel efficiency of the Company's peaking generation (which translates to lower fuel costs for DESC and its customers), and decreases the Company's environmental footprint.

¹ To review the Company's Short-Term Action Plan, see pages 82 through 87 of the Modified 2020 IRP. The peaking generation replacement plan is specifically discussed on page 84.

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The peaking generation replacement plan also takes advantage of the Federal Energy Regulatory Commission's recent approval of certain revisions to DESC's Open-Access Transmission Tariff ("OATT"). See Order Accepting Tariff Revisions, 173 FERC ¶ 61,171 (Nov. 23, 2020) in Docket No. ER20-1668-003. The approved revisions to the OATT include a generator replacement process that would be administered by an independent entity, the Generator Replacement Coordinator (Independent GRC), to facilitate replacement of generating facilities on DESC's transmission system. Under this process, incumbent generators interconnected to the DESC transmission system can replace existing generation through an expedited process outside of the traditional interconnection study queue process. DESC plans to employ this generator replacement process to accelerate the replacement of existing peaking generators by leveraging its existing interconnections. As recognized by FERC in accepting the revisions to DESC's OATT, this efficient reuse of existing infrastructure investments accrues to the customer's benefit. See 173 FERC ¶ 61,171 (finding that "the assets the existing generator facility owns at the site can potentially be reused, creating efficiencies that result in lower rates").

In furtherance of the peaking generation replacement plan, and as part of project development activities, DESC has conducted a competitive request for proposals ("RFP") for the turbine equipment itself and has a shortlisted supplier and technology for each site based on the lowest evaluated cost. DESC further plans to conduct a competitive RFP for the engineering, procurement, and construction of the replacement units within the next month.

By this letter, DESC requests that the Public Service Commission of South Carolina ("Commission") approve its peaking generation replacement plan and that, where applicable, the Commission make certain "like facility" determinations, as authorized by S.C. Code Ann. § 58-33-110(1) (2015), and/or, issue a waiver of the requirement of Commission Order No. 2007-626, if applicable, which requires DESC to conduct a mandatory RFP for "new peaking generation requirements." If the Commission approves this request, the Company intends to include the modeling of the replacement peaking generation in its 2021 Update to its Modified 2020 IRP as well as in future determinations of avoided cost pursuant to the avoided cost methodology approved in Docket No. 2019-184-E. The Company further anticipates that the attributes of the proposed replacement generation may help reduce the variable integration costs associated with additional solar generation on the Company's system and that these replacements will generally be supportive of additional solar generation build-out in DESC's service territory.

I. Bushy Park – Request for Waiver of Commission Order No. 2007-626 if the Commission determines that replacement is "new peaking generation requirement"

Currently, at its Bushy Park site, the Company operates two simple cycle combustion turbines (individually, "Bushy Park A" and "Bushy Park B"), which entered commercial operation in 1972. The two turbines can each run on either natural gas or fuel oil and, when operational, are each capable of providing 26 MW of capacity in the winter (52 MW combined) and 20 MW of capacity in the summer (40 MW combined). Bushy Park A failed in October 2019 and has been in "mothball" status pending the replacement proposed herein.

DESC proposes to replace the two existing combustion turbines with a single combustion turbine with an expected winter output capability of approximately 57 MW. The efficiency (heat rate) of the replacement turbine would be significantly better than the existing turbines. The replacement turbine would require approximately 50% less fuel to generate the same amount of electricity and would also significantly reduce emissions as compared to the existing turbines because DESC intends to implement selective catalytic reduction systems for NO_x control and oxidation catalysts for CO control.

The proposed replacement Bushy Park generator would provide black start services to DESC's Southern Region and would also be equipped with synchronous condensing capability for support of the electric transmission system, i.e., the generator will be able to generate or absorb reactive power to move electrical energy while the combustion turbine is offline. DESC anticipates that the replacement Bushy Park unit will enter commercial operation in 2023.

Because the proposed Bushy Park replacement unit is not "designed for, or capable of, operation at a capacity of more than seventy-five megawatts," it is not a "major utility facility" as that term is defined in S.C. Code Ann. § 58-33-20 and does not require siting approval or a like facility determination from the Commission pursuant to S.C. Code Ann. § 58-33-110(1).

Moreover, because the proposed combustion turbine is a *replacement* for existing generation, it is not a "new peaking generation requirement;" and the Company asserts that Order No. 2007-626 is therefore inapplicable. However, to the extent that the Commission determines otherwise, the Company would request that the Commission issue a waiver of the mandatory RFP requirement in Order No. 2007-626. The Company believes that a formal RFP process would delay the availability of this peaking capacity and its associated reliability benefits to the DESC customer base in the Southern Region, which includes the growing Charleston metropolitan area, and impose a relatively high administrative cost to the replacement of the existing generation. See Commission Order No. 2008-469 (excepting DESC, then SCE&G, from the mandatory RFP requirement for the replacement of four aging turbines with a combined summer capacity of 38 MW with two relatively new turbines with a combined summer capacity of 34 MW); see also 173 FERC ¶ 61,171 (finding that "the generator replacement process will not delay the replacement of older resources with more efficient and cost-effective resources as compared to the interconnection study queue process"). The Company further asserts that the replacement turbine represents the "beneficial, cost effective and fuel-efficient proposal that is consistent with the considerations that led th[e] Commission to issue the RFP [requirement]." Id. at 4-5.

II. Parr - Request for Waiver of Commission Order No. 2007-626 if the Commission determines that replacement is "new peaking generation requirement"

Currently, at its Parr site, the Company operates four simple cycle combustion turbines ("Parr CT1", "Parr CT2", "Parr CT3", and "Parr CT4"), all of which entered commercial operation in 1970 and can run on either natural gas or fuel oil. When operational, Parr CT1 and CT2 are each capable of providing 17 MW of capacity in the winter (34 MW combined) and 13.5 MW of capacity in the summer (27 MW combined), and Parr CT3 and CT4 are each capable of providing 19.5 MW of capacity in the winter (39 MW combined) and 16.5 MW of capacity in the summer

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(33 MW combined). These four turbines provide a secondary source of offsite power to V.C. Summer Nuclear Station; they play a critical role in system restoration in a black start scenario and support nuclear safety and online maintenance of the emergency diesel generator sets at V.C. Summer Nuclear Station.

DESC proposes to replace the four existing combustion turbines with two combustion turbines, each with an expected winter output capability of approximately 57 MW (114 MW combined). The replacement turbines would have significantly better heat rates and would require approximately 35% less fuel to generate the same amount of electricity than Parr CT1 and CT2 and approximately 34% less fuel to generate the same amount of electricity than Parr CT3 and CT4. The replacement turbines would also significantly reduce emissions as compared to the existing turbines as DESC intends to implement selective catalytic reduction systems for NO_x control and oxidation catalysts for CO control.

The two proposed replacement Parr units would provide black start services to DESC's Northern Region (including serving as an offsite power source to V.C. Summer Nuclear Station) and would also be equipped with synchronous condensing capability for support of the electric transmission system. DESC anticipates that the two replacement Parr units will enter commercial operation in 2023 or 2024.

Because neither of the replacement Parr turbines are "designed for, or capable of, operation at a capacity of more than seventy-five megawatts," neither turbine is a "major utility facility" as that term is defined in S.C. Code Ann. § 58-33-20 and so neither requires siting approval or a like facility determination from the Commission pursuant to S.C. Code Ann. § 58-33-110(1).

Moreover, because the two proposed combustion turbines are *replacements* for existing generation, they are not a "new peaking generation requirement;" and the Company asserts that Order No. 2007-626 is inapplicable. However, to the extent that the Commission determines otherwise, the Company would request that the Commission issue a waiver of the mandatory RFP requirement in Order No. 2007-626. The Company believes that a formal RFP process would delay the availability of this peaking capacity and its associated reliability benefits to the DESC customer base in the Northern Region, which includes the V.C. Summer Nuclear Station and Fairfield County, and impose a relatively high administrative cost to the replacement of the existing generation. See Commission Order No. 2008-469 (excepting DESC, then SCE&G, from the mandatory RFP requirement for the replacement of four aging turbines with a combined summer capacity of 38 MW with two relatively new turbines with a combined summer capacity of 34 MW); see also 173 FERC ¶ 61,171 (finding that "the generator replacement process will not delay the replacement of older resources with more efficient and cost-effective resources as compared to the interconnection study queue process"). The Company further asserts that the replacement turbines represent a "beneficial, cost effective and fuel-efficient proposal that is consistent with the considerations that led th[e] Commission to issue the RFP [requirement]." Id. at 4-5.

III. Urquhart - Request for Like Facility Determination and Request for Waiver of Commission Order No. 2007-626 if the Commission determines that replacement is “new peaking generation requirement”

Currently, at its Urquhart site, the Company operates three combustion turbines (“Urquhart CT #1”, “Urquhart CT #2” and “Urquhart CT #3”), all of which entered commercial operation in 1969; and a combustion turbine (“Urquhart CT #4”), which was manufactured in 1997 and then purchased as a used model and installed by the Company in 1999; and a natural gas boiler supplying steam to a turbine-generator set (“Urquhart Steam Unit #3”), which entered commercial operation in 1955. The four combustion turbines can each run on natural gas or fuel oil; the steam turbine was converted from primary operation on coal to operation solely utilizing natural gas in 2012. When operational, Urquhart CT #1 is capable of providing 16 MW of winter capacity and 13 MW of summer capacity; Urquhart CT #2 is capable of providing 17 MW of winter capacity and 14 MW of summer capacity; Urquhart CT #3 is capable of providing 15 MW of winter capacity and 12 MW of summer capacity; Urquhart CT #4 capable of providing 49 MW of winter capacity and 48 MW of summer capacity; and the Urquhart Steam Unit #3 is capable of providing 96 MW of winter capacity and 95 MW of summer capacity.

DESC proposes to replace the four existing combustion turbines with a single combustion turbine with an expected winter output capability of approximately 117 MW and to also replace Urquhart Steam Unit #3 with a complementary single combustion turbine with an expected winter output capability of approximately 117 MW. The heat rate of the new turbines is significantly better than the current heat rates. The replacement turbine for the four combustion turbines would require approximately 45% less fuel to generate the same amount of electricity and the replacement turbine for the Urquhart Steam Unit #3 would require approximately 23% less fuel to generate the same amount of electricity. The replacement turbines would also significantly reduce emissions as compared to the existing units as DESC intends to implement selective catalytic reduction systems for NO_x control and oxidation catalysts for CO control.

The two proposed replacement Urquhart units would provide black start services to DESC’s Western Region. DESC anticipates that the replacement Urquhart units would enter commercial operation in 2024 or 2025.

Both of the replacement Urquhart turbines are “designed for, or capable of, operation at a capacity of more than seventy-five megawatts,” and are each a “major utility facility” as that term is defined in S.C. Code Ann. § 58-33-20. However, one of the replacement combustion turbines is a “like facility” for the four existing combustion turbines, and the other replacement combustion turbine is a “like facility” for the Urquhart Steam Unit #3. Therefore, neither of the replacement combustion turbines requires certification pursuant to the Utility Facility Siting Act and Environmental Protection Act. Consequently, the Company respectfully requests that the Commission make a determination, as authorized by S.C. Code Ann. § 58-33-110(1) (2015), that each replacement unit constitutes “the replacement of an existing facility [or facilities] with a like facility” and therefore does not constitute “construction of a major utility facility” for which certification would be required under the Utility Facility Siting Act and Environmental Protection Act. See Commission Order No. 2014-118 (holding that Duke Energy Carolinas, LLC’s

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conversion and repowering of the 170 MW Lee Unit 3 from coal to natural gas was “replacement of an existing facility with a like facility” and did not require certification).

Moreover, because the two proposed combustion turbines are *replacements* for existing generation, neither are a “new peaking generation requirement;” and the Company asserts that Order No. 2007-626 is inapplicable.² However, to the extent that the Commission determines otherwise, the Company would request that the Commission issue a waiver of the mandatory RFP requirement in Order No. 2007-626. The Company believes that a formal RFP process would delay the availability of this peaking capacity and its associated reliability benefits to the DESC customer base in the Western Region, which includes Aiken County, and impose a relatively high administrative cost to the replacement of the existing generation. See Commission Order No. 2008-469 (excepting DESC, then SCE&G, from the mandatory RFP requirement for the replacement of four aging turbines with a combined summer capacity of 38 MW with two relatively new turbines with a combined summer capacity of 34 MW); see also 173 FERC ¶ 61,171 (finding that “the generator replacement process will not delay the replacement of older resources with more efficient and cost-effective resources as compared to the interconnection study queue process”). The Company further asserts that the replacement turbines represent a “beneficial, cost effective and fuel-efficient proposal that is consistent with the considerations that led th[e] Commission to issue the RFP [requirement].” Id. at 4-5.

IV. Benefits to Customers

a. System Reliability and Support for Renewables

In addition to the improvements in heat rates, fuel usage, and environmental aspects, the Company’s peaking generation replacement plan benefits customers by supporting the continued reliability of DESC’s system and supporting the integration of intermittent, non-dispatchable renewable resources (e.g., solar).

As discussed above, DESC’s existing peaking generation provides capacity to help meet critical system peaks. However, approximately 60 percent of DESC’s peaking generation is approximately 50 years or older and nearing the end of its useful life. For certain units, there is no longer original equipment manufacturer support and only limited options for third party support. Further, for the existing units, there is limited parts availability, and certain items such as compressor/turbine blades may require custom manufacturing at significant expense and without warranties. The replacement generation alleviates these concerns, and, as set forth above, the replacement units will also have the capability to support black start of the Company’s Southern,

² For the same reason, the Company asserts that its Settlement Agreement with the South Carolina Solar Business Alliance in Docket No. 2017-370-E is inapplicable here. In that Settlement Agreement, which the Commission approved in principle with certain modifications in Order No. 2018-804(A), the Company agreed to “not procure or apply to certify a *new* generating resource with a nameplate capacity of more than 75 MW without first conducting a competitive, all-source solicitation.” The two proposed combustion turbines at Urquhart are replacement facilities, not “new generating resources” and thus this provision of the Settlement Agreement is inapplicable. However, should the Commission determine otherwise, the Company likewise requests that the Commission issue a waiver of this RFP requirement too.

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Northern, and Western Regions and, in the case of the replacement Parr units, support the V.C. Summer Nuclear Station and its safety systems.

As the recent events in the State of Texas demonstrate, reliable peaking capacity is a necessity for utilities such as DESC. DESC counts the existing units that it intends to replace towards satisfying its reserve requirements to meet winter and summer peak native load demands, and to meet its obligations under the Virginia-Carolinas Reserve (VACAR) Sharing Agreement. All of the replacement units will have dual-fuel capability (natural gas and ultra-low sulfur fuel oil) to enhance their resiliency and reliability in the event of natural gas pipeline Operational Flow Orders, curtailments, or other operating restrictions.

The planned replacement generation will also support the continued integration of intermittent, non-dispatchable renewable resources such as solar. With the significant influx of renewable resources on the DESC system, fast starting and flexible assets are necessary to provide reliable peaking capacity. The proposed replacement turbines are capable of multiple fast starts (i.e., less than 10 minutes) per day with low minimum operating periods and can efficiently load follow to provide regulating reserves and meet intraday peaking needs. Further, the replacement turbines offer excellent cold-weather performance, satisfying the Company's need for reliable capacity on cold winter mornings when solar is unavailable and incapable of providing capacity to the system.

b. Environmental Impact and Fuel Efficiency

The peaking generation replacement plan also benefits customers by decreasing the Company's environmental footprint and increasing the fuel efficiency of its peaking generation.

The plan, if approved, allows for the efficient reuse of the existing Bushy Park, Parr, and Urquhart sites where the natural gas infrastructure, electric transmission interconnection infrastructure, and staffing is already present. And, if the plan is approved, the Company plans to proceed with retirement and decommissioning of its 9 MW Hardeeville combustion turbine, which entered commercial operation in 1968, and its two Coit combustion turbines, which entered commercial operation in 1969, and are each capable of providing 18 MW of winter capacity (36 MW combined) and 13 MW of summer capacity (26 MW combined). These retirements would help to further reduce the Company's operational and environmental footprint.

Moreover, the replacement units will meet all federal and state standards for new sources, replacing many units that had been "grandfathered" as they predated contemporary permitting and Clean Air Act requirements. Employing modern emissions controls and significantly reducing fuel consumption, the replacement turbines will significantly reduce NO_x, CO, and CO₂ emissions as compared to the existing peaking generation units. The Company expects that the replacement aeroderivative units could be dispatched more frequently (and thereby displace less efficient generation). The replacement units quick-start capabilities support continued integration of renewables, furthering Dominion Energy's enterprise-wide Net Zero commitment for greenhouse gas emissions by 2050.

Finally, customers will benefit from significantly enhanced fuel efficiency. As previously discussed, the replacement turbines will generate the same amount of electricity using 23% to 50% less fuel than the existing peaking generation. Enhanced fuel efficiency lowers fuel costs, and these savings are directly passed through to customers each year in the Company's annual fuel proceeding.

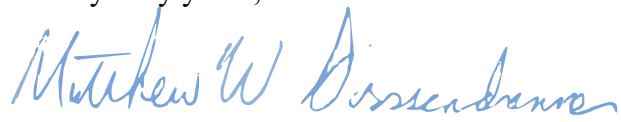
V. Request for Relief.

Based on the foregoing, DESC requests that the Commission issue an order (1) approving DESC's peaking generation replacement plan; (2) determining that the replacement of the four existing combustion turbines at the Urquhart site with a single combustion turbine constitutes the "replacement of an existing facility [or facilities] with a like facility" and does not constitute "construction of a major utility facility" for which certification would be required under the Utility Facility Siting Act and Environmental Protection Act; (3) determining that the replacement of the Urquhart Steam Turbine #3 with a single combustion turbine constitutes the "replacement of an existing facility with a like facility; (4) if the Commission determines that Commission Order No. 2007-626 is applicable to the replacement generation, granting DESC a waiver of the mandatory RFP requirement for each of the replacements at the Bushy Park, Parr, and Urquhart sites and (5) granting such other and further relief as is just and proper.

By copy of this letter, we are advising counsel for the South Carolina Office of Regulatory Staff of DESC's request.

If you have any questions, please do not hesitate to contact us at your convenience.

Very truly yours,



Matthew W. Gissendanner

MWG/kms

cc: Jeffrey M. Nelson, Esquire
Dawn Hipp
(both via electronic mail and U.S. First Class Mail)